

```
? set hi ;set hi
HIGHLIGHT set on as ''
HIGHLIGHT set on as ''
? b 155 55 scisearch 340
      10sep07 11:17:59 User231882 Session D1837.2
      $0.00      0.115 DialUnits File410
      $0.00 Estimated cost File410
      $0.06 TELNET
      $0.06 Estimated cost this search
      $0.06 Estimated total session cost      0.380 DialUnits
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SYSTEM:OS - DIALOG OneSearch
File 155:MEDLINE(R) 1950-2007/Sep 07
      (c) format only 2007 Dialog
File 55:Biosis Previews(R) 1993-2007/Sep W1
      (c) 2007 The Thomson Corporation
File 34:SciSearch(R) Cited Ref Sci 1990-2007/Sep W1
      (c) 2007 The Thomson Corp
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
      (c) 2006 The Thomson Corp
File 340:CLAIMS(R)/US Patent 1950-07/Sep 06
      (c) 2007 IFI/CLAIMS(R)
*File 340: The 2006 reload is online as of December 1, 2006.
IPCR/8 is available.
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Set	Items	Description
? s B7((w)h3	0	B7(
	27927	H3
S1	0	B7((W)H3
? s b7(w)h3	19418	B7
	27927	H3
S2	151	B7(W)H3
? rd		

>>>Duplicate detection is not supported for File 340.

>>>Records from unsupported files will be retained in the RD set.

S3 90 RD (unique items)

? s s3 and py<=2002

Processing

Processing

90 S3  
44820242 PY<=2002  
S4 7 S3 AND PY<=2002  
? t s4/3,k,ab/1-7

4/3,K,AB/1 (Item 1 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 2007 Dialog. All rts. reserv.

14094134 PMID: 12385029

T lymphocytes express B7 family molecules following interaction with dendritic cells and acquire bystander costimulatory properties.

Ferlazzo Guido; Semino Claudia; Meta Maurizio; Procopio Francesco; Morandi Barbara; Melioli Giovanni

Laboratorio di Immunoterapia, Unita di Immunologia, Istituto Nazionale per la Ricerca sul Cancro, CBA, Largo Rosanna Benzi, 10, I-16132 Genova, Italy. ferlazzo@cba.unige.it

European journal of immunology (Germany) Nov 2002, 32 (11)

p3092-101, ISSN 0014-2980--Print Journal Code: 1273201

Publishing Model Print

Document type: Journal Article; Research Support, Non-U.S. Gov't

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Dendritic cells (DC) play a pivotal role in the initiation, maintenance and regulation of the immune response. Here we obtained the first evidence that DC, in the absence of any foreign antigens, induce the expression of B7 family costimulatory molecules, such as CD80, CD86, B7-H1, PD-L2, \*\*\*B7\*\*\* - \*\*\*H3\*\*\*, and B7RP-1, on autologous T lymphocytes. Cell-to-cell contact between DC and T cells was needed in order to obtain this expression on T cells. De novo expressed B7 molecules on T cells were functional since B7+ T cells were able to costimulate the proliferation of highly purified T cells. While both autologous and allogeneic DC were able to induce similar levels of costimulatory molecule expression, the chemokine receptor repertoire on B7+ T cells after interaction with DC varied depending on the presence of allo-antigens during the interaction (CCR7-, CCR5+) or the absence of antigens (CCR7+, CCR5-). In accordance with this different pattern of chemokine receptors in the two conditions, we propose that, after the encounter with DC in lymphoid organs, this peculiar T cell population should reside in the T cell areas of the lymph nodes or migrate to peripheral sites of inflammation, providing a second signal for activating or switching off, respectively, naive or peripheral effector T cells.

... \*\*\*2002\*\*\*,

... the expression of B7 family costimulatory molecules, such as CD80, CD86, B7-H1, PD-L2, B7-H3, and B7RP-1, on autologous T lymphocytes. Cell-to-cell contact between DC and T...

4/3,K,AB/2 (Item 2 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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14072913. PMID: 12498807

A cell-based artificial antigen-presenting cell coated with anti-CD3 and CD28 antibodies enables rapid expansion and long-term growth of CD4 T lymphocytes.

Thomas Anna K; Maus Marcela V; Shalaby Waleed S; June Carl H; Riley James L

Abramson Family Cancer Research Institute, University of Pennsylvania, Philadelphia, Pennsylvania 19104, USA.

Clinical immunology (Orlando, Fla.) (United States) Dec \*\*\*2002\*\*\*, 105 (3) p259-72, ISSN 1521-6616--Print Journal Code: 100883537

Contract/Grant No.: DK07748; DK; NIDDK

Publishing Model Print

Document type: Journal Article; Research Support, Non-U.S. Gov't; Research Support, U.S. Gov't, P.H.S.

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

We compared the ability of two genetically modified myeloid cells, K562 and U937, to serve as artificial antigen-presenting cells (aAPC). Both aAPC were stably transfected with the low-affinity Fcgamma receptor CD32 (K32/U32 cells). K32 cells loaded with anti-CD3 and anti-CD28 Ab (K32/CD3/28) induced more rapid CD4 T-cell expansion than CD3/28-coated beads. In contrast, U32/CD3/28 induced high levels of CD4 T-cell thymidine uptake but were unable to sustain long-term T-cell expansion. K32 cells, but not U32 cells, loaded with anti-CD3 alone also stimulated CD4 T-cell growth and IL-2 secretion, indicating the expression of additional costimulatory molecules on K32 cells. We found constitutive expression of B7-H3 and a strong upregulation of mRNA encoding for IL-15, PD-L1, and PD-L2 after coculture with CD4 T cells activated by K32/CD3/28 but not U32/CD3/28. We conclude that K32 aAPCs are a robust system for

clinical scale ex vivo expansion of CD4 T cells.

... \*\*\*2002\*\*\* ,

...indicating the expression of additional costimulatory molecules on K32 cells. We found constitutive expression of \*\*\*B7\*\*\* - \*\*\*H3\*\*\* and a strong upregulation of mRNA encoding for IL-15, PD-L1, and PD-L2...

4/3,K,AB/3 (Item 3 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 2007 Dialog. All rts. reserv.

13788037 PMID: 12055244

Characterization of mouse and human \*\*\*B7\*\*\* - \*\*\*H3\*\*\* genes.

Sun Mingyi; Richards Sabrina; Prasad Durbaka V R; Mai Xoi Muoi; Rudensky Alexander; Dong Chen

Department of Immunology, University of Washington School of Medicine, Seattle, WA 98195, USA.

Journal of immunology (Baltimore, Md. - 1950) (United States) Jun 15 2002, 168 (12) p6294-7, ISSN 0022-1767--Print Journal Code: 2985117R

Contract/Grant No.: AI50746; AI; NIAID

Publishing Model Print

Document type: Comparative Study; Journal Article; Research Support, Non-U.S. Gov't; Research Support, U.S. Gov't, P.H.S.

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

T cell activation and immune function are regulated by costimulatory molecules of the B7 superfamily. Human \*\*\*B7\*\*\* - \*\*\*H3\*\*\* is a recent addition to this family and has been shown to mediate T cell proliferation and IFN-gamma production. In this work we describe the identification of the mouse B7-H3 homolog, which is ubiquitously expressed in a variety of tissues. Activated CD4 and CD8 T cells express a putative receptor that can be recognized by soluble mouse B7-H3-Ig molecules. While the mouse \*\*\*B7\*\*\* - \*\*\*H3\*\*\* gene was found to contain a single copy, we discovered a novel isoform of human B7-H3 (named as B7-H3b hereafter) with four Ig-like domains that results from gene duplication and differential splicing. B7-H3b is the major isoform expressed in several tissues. This structural information suggests a genetic variation of the \*\*\*B7\*\*\* - \*\*\*H3\*\*\* gene in mammalian species.

Characterization of mouse and human \*\*\*B7\*\*\* - \*\*\*H3\*\*\* genes.

... \*\*\*2002\*\*\* ,

... cell activation and immune function are regulated by costimulatory molecules of the B7 superfamily. Human \*\*\*B7\*\*\* - \*\*\*H3\*\*\* is a recent addition to this family and has been shown to mediate T cell proliferation and IFN-gamma production. In this work we describe the identification of the mouse B7-H3 homolog, which is ubiquitously expressed in a variety of tissues. Activated CD4 and CD8 T cells express a putative receptor that can be recognized by soluble mouse B7-H3-Ig molecules. While the mouse \*\*\*B7\*\*\* - \*\*\*H3\*\*\* gene was found to contain a single copy, we discovered a novel isoform of human B7-H3 (named as B7-H3b hereafter) with four Ig-like domains that results from gene duplication...

... major isoform expressed in several tissues. This structural information suggests a genetic variation of the B7-H3 gene in mammalian species.

Chemical Name: Antigens, CD80; B7-H3 protein, mouse; B7H3 protein, human; Protein Isoforms; Recombinant Fusion Proteins

4/3,K,AB/4 (Item 4 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)

(c) format only 2007 Dialog. All rts. reserv.

13151264 PMID: 11224528

B7-H3 : a costimulatory molecule for T cell activation and IFN-gamma production.

Chapoval A I; Ni J; Lau J S; Wilcox R A; Flies D B; Liu D; Dong H; Sica G L; Zhu G; Tamada K; Chen L

Department of Immunology, Mayo Graduate and Medical Schools, Mayo Clinic, Rochester, MN 55905, USA.

Nature immunology (United States) Mar 2001, 2 (3) p269-74, ISSN 1529-2908--Print Journal Code: 100941354

Contract/Grant No.: AI07425; AI; NIAID; CA09127; CA; NCI

Publishing Model Print

Document type: Journal Article; Research Support, Non-U.S. Gov't; Research Support, U.S. Gov't, Non-P.H.S.; Research Support, U.S. Gov't, P.H.S.

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

We describe here a newly identified member of the human B7 family, designated B7 homolog 3 (B7-H3), that shares 20-27% amino acid identity with other B7 family members. \*\*\*B7\*\*\* - \*\*\*H3\*\*\* mRNA is not detectable in peripheral blood mononuclear cells, although it is found in various normal tissues and in several tumor cell lines. Expression of B7-H3 protein, however, can be induced on dendritic cells (DCs) and monocytes by inflammatory cytokines and a combination of phorbol myristate acetate (PMA) + ionomycin. Soluble \*\*\*B7\*\*\* - \*\*\*H3\*\*\* protein binds a putative counter-receptor on activated T cells that is distinct from CD28, cytotoxic T lymphocyte antigen 4 (CTLA-4), inducible costimulator (ICOS) and PD-1. \*\*\*B7\*\*\* - \*\*\*H3\*\*\* costimulates proliferation of both CD4+ and CD8+ T cells, enhances the induction of cytotoxic T cells and selectively stimulates interferon gamma (IFN-gamma) production in the presence of T cell receptor signaling. In contrast, inclusion of antisense B7-H3 oligonucleotides decreases the expression of B7-H3 on DCs and inhibits IFN-gamma production by DC-stimulated allogeneic T cells. Thus, we describe a newly identified costimulatory pathway that may participate in the regulation of cell-mediated immune responses.

B7-H3 : a costimulatory molecule for T cell activation and IFN-gamma production.

... \*\*\*2001\*\*\* ,

... describe here a newly identified member of the human B7 family, designated B7 homolog 3 (B7-H3), that shares 20-27% amino acid identity with other B7 family members. \*\*\*B7\*\*\* - \*\*\*H3\*\*\* mRNA is not detectable in peripheral blood mononuclear cells, although it is found in various normal tissues and in several tumor cell lines. Expression of B7-H3 protein, however, can be induced on dendritic cells (DCs) and monocytes by inflammatory cytokines and a combination of phorbol myristate acetate (PMA) + ionomycin. Soluble \*\*\*B7\*\*\* - \*\*\*H3\*\*\* protein binds a putative counter-receptor on activated T cells that is distinct from CD28, cytotoxic T lymphocyte antigen 4 (CTLA-4), inducible costimulator (ICOS) and PD-1. \*\*\*B7\*\*\* - \*\*\*H3\*\*\* costimulates proliferation of both CD4+ and CD8+ T cells, enhances the induction of cytotoxic T...

... gamma) production in the presence of T cell receptor signaling. In contrast, inclusion of antisense B7-H3 oligonucleotides decreases the expression of B7-H3 on DCs and inhibits IFN-gamma production by DC-stimulated allogeneic T cells. Thus, we...

4/3,K,AB/5 (Item 1 from file: 55)

DIALOG(R)File 55:Biosis Previews(R)

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16739725 BIOSIS NO.: 200200333236

The right place at the right time: Novel B7 family members regulate effector T cell responses

AUTHOR: Liang Linda (Reprint); Sha William C (Reprint)

AUTHOR ADDRESS: Division of Immunology, University of California, Berkeley, 441 Life Sciences Addition, Berkeley, CA, 94720, USA\*\*USA

JOURNAL: Current Opinion in Immunology 14 (3): p384-390 June, 2002 2002

MEDIUM: print

ISSN: 0952-7915

DOCUMENT TYPE: Article; Literature Review

RECORD TYPE: Citation

LANGUAGE: English

2002

DESCRIPTORS:

CHEMICALS & BIOCHEMICALS: ... \*\*\*B7\*\*\* - \*\*\*H3\*\*\* ;

4/3,K,AB/6 (Item 2 from file: 55)

DIALOG(R)File 55:Biosis Previews(R)

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16106824 BIOSIS NO.: 200100278663

B7-H3, a novel member of the B7 family that costimulates T cell responses and selectively enhances interferon-gamma production

AUTHOR: Chapoval Andrei I (Reprint); Ni Jian; Lau Julie S (Reprint); Wilcox Ryan A (Reprint); Flies Dallas B (Reprint); Liu Ding; Dong Haidong (Reprint); Sica Gabriel L (Reprint); Zhu Gefeng (Reprint); Tamada Koji (Reprint); Chen Lieping (Reprint)

AUTHOR ADDRESS: Mayo Clinic, 200 First Street SW, Rochester, MN, 55905, USA \*\*USA

JOURNAL: FASEB Journal 15 (4): pA345 March 7, 2001 2001

MEDIUM: print

CONFERENCE/MEETING: Annual Meeting of the Federation of American Societies for Experimental Biology on Experimental Biology 2001 Orlando, Florida, USA March 31-April 04, 2001; 20010331

ISSN: 0892-6638

DOCUMENT TYPE: Meeting; Meeting Abstract

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Costimulation, in addition to TCR engagement, is required for optimal activation of T cells. The most extensively studied costimulatory molecules belong to the B7 family, which includes well known (B7-1 and B7-2) and recently described (B7-H1 and B7-H2) molecules. We discovered a novel member of the human B7 family, designated B7-H3 that shares 20-27% amino acid identity with other B7 family members. \*\*\*B7\*\*\* - H3 mRNA was not detectable in peripheral blood mononuclear cells although it was found in various normal tissues and in several tumor lines. \*\*\*B7\*\*\* - \*\*\*H3\*\*\* was expressed on the surface of GM-CSF derived macrophages and IFN-gamma stimulated dendritic cells. In addition, stimulation by a combination of phorbol myristate acetate and ionomycin induces surface expression of \*\*\*B7\*\*\* - \*\*\*H3\*\*\* on CD3+ T cells. Soluble B7-H3 protein bound a putative counter-receptor on PHA-activated T cells distinct from CD28, CTLA-4, ICOS, and PD-1. B7-H3 costimulated proliferation of both CD4+ and CD8+ T cells, enhanced the induction of cytotoxic T cells, and selectively enhanced IFN-gamma production in the presence of T cell receptor signaling. Thus, our results identified additional B7 family molecule that may participate in the regulation of cell-mediated immune responses.

B7-H3, a novel member of the B7 family that costimulates T cell responses and selectively enhances...

2001

...ABSTRACT: and B7-H2) molecules. We discovered a novel member of the human B7 family, designated B7-H3 that shares 20-27% amino acid identity with other B7 family members. \*\*\*B7\*\*\* - \*\*\*H3\*\*\* mRNA was not detectable in peripheral blood mononuclear cells although it was found in various normal tissues and in several tumor lines. \*\*\*B7\*\*\* - H3 was expressed on the surface of GM-CSF derived macrophages and IFN-gamma stimulated dendritic...

...addition, stimulation by a combination of phorbol myristate acetate and ionomycin induces surface expression of B7-H3 on CD3+ T cells. Soluble \*\*\*B7\*\*\* - \*\*\*H3\*\*\* protein bound a putative counter-receptor on PHA-activated T cells distinct from CD28, CTLA-4, ICOS, and PD-1. \*\*\*B7\*\*\* - \*\*\*H3\*\*\* costimulated proliferation of both CD4+ and CD8+ T cells, enhanced the induction of cytotoxic T...

DESCRIPTORS:

CHEMICALS & BIOCHEMICALS: B7-H3;

4/3,K,AB/7 (Item 1 from file: 340)  
DIALOG(R)File 340:CLAIMS(R)/US Patent  
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Dialog Acc No: 04237725

IFI Chemical Acc No: 2005-0012713

Document Type: C

(A1) B7-H3 AND B7-H4, NOVEL IMMUNOREGULATORY MOLECULES;  
NUCLEOTIDE SEQUENCES CODING POLYPEPTIDE FOR USE IN THE TREATMENT OF  
INFLAMMATORY AND AUTOIMMUNE DISEASE

(B2) T-CELL IMMUNOREGULATORY MOLECULE; NUCLEOTIDE SEQUENCES CODING  
POLYPEPTIDE FOR USE IN THE TREATMENT OF INFLAMMATORY AND AUTOIMMUNE DISEASE

Inventors: Chen Lieping (US)

Assignee: (A1) Unassigned Or Assigned To Individual

(B2) Mayo Foundation for Medical Education and Research

Assignee Code: (A1) 68000; (B2) 13388

Probable Assignee (A1): Mayo Foundation for Medical Education and Research

Attorney, Agent or Firm: Fish & Richardson P.C.

Publication (No,Kind,Date), Applic (No,Date):

US 20020168762 A1 20021114 US 2001915789 20010726

US 6891030 B2 20050510 US 2001915789 20010726

Calculated Expiration: 20210726

Notes: INDEXED FROM APPLICATION

Prior Publication(No,Date),Applic(No,Date):US 20020168762 A1 20021114

Priority Applic(No,Date): US 2001915789 20010726

Provisional Applic(No,Date): US 60-220991 20000727

Abstract: (US 20020168762 A1)

The invention provides novel B7-H3 and B7-H4 polypeptides useful for co-stimulating T cells, isolated nucleic acid molecules encoding them, vectors containing the nucleic acid molecules, and cells containing the vectors. Also included are methods of making and using these co-stimulatory polypeptides.

Abstract: (US 6891030 B2)

The invention provides B7-H4 isolated nucleic acid molecules, vectors containing the nucleic acid molecules, and cells containing the vectors. Also included are methods of making B7H4 co-stimulatory polypeptides.

... \*\*\*B7\*\*\* - \*\*\*H3\*\*\* AND B7-H4, NOVEL IMMUNOREGULATORY MOLECULES  
Publication (No,Kind,Date), Applic (No,Date):

... \*\*\*20021114\*\*\*

...Prior Publication(No,Date),Applic(No,Date): \*\*\*20021114\*\*\*

Abstract: ...The invention provides novel \*\*\*B7\*\*\* - \*\*\*H3\*\*\* and B7-H4 polypeptides useful for co-stimulating T cells, isolated nucleic acid molecules encoding...

Non-exemplary Claims:

...stimulatory polypeptide selected from the group consisting of (i) B7-H1, (ii) B7-H2, (iii) B7-H3, (iv) B7-H4, (v) a functional fragment of any of (i)-(iv), and (vi) any...

...consisting of (vi) B7-1, (vii) B7-2, (viii) B7-H1, (ix) B7-H2, (x) B7-H3, (xi) B7-H4, (xii) a functional fragment of any of (vi)-(xi), and (xii) any...

?